

**State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**ORDER NO. 00-XXX  
NPDES NO. CA0053651**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
CITY OF SAN BUENAVENTURA  
(Ventura Water Reclamation Facility)**

The California Regional Water Quality Control Board, Los Angeles Region, (hereinafter Regional Board) finds:

**BACKGROUND**

1. The City of San Buenaventura (City or Discharger) discharges wastes from its Ventura Water Reclamation Facility under waste discharge requirements contained in Order No. 95-074 adopted by this Regional Board on June 12, 1995. This Order also serves as the National Pollutant Discharge Elimination System (NPDES) permit (CA0053651).
2. The City has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and NPDES permit.

**DESCRIPTION OF FACILITY**

3. The City operates the Ventura Water Reclamation Facility, a publicly-owned tertiary wastewater treatment facility with a design capacity of 14 million gallons per day (mgd). The facility is located at 1400 Spinnaker Drive, San Buenaventura, Ventura County, California (Figure 1 shows the location of the plant). The facility treats municipal wastewater from domestic, commercial, and industrial sources. The treated wastewater is discharged into the Santa Clara River Estuary, a water of the United States, at latitude 34° 14' 11", and longitude 119° 15' 31" (Discharge Serial No. 001). The facility is responsible for 375 miles of sewer mains and 12 lift stations in addition to the treatment plant.
4. The City is in the process of renovating and upgrading the existing aeration system and secondary sedimentation tanks of the activated sludge process. The City anticipates that all major structural upgrades which impact the operation of the treatment process will be complete by October 1, 2000.

5. Upon completion of the upgrade, treatment at the facility will consist of grit removal, primary sedimentation, flow equalization, roughing filters, activated sludge, tertiary filters, chlorination / dechlorination, primary sludge thickener, DAF secondary sludge thickener, anaerobic digestion, plate press, and land application or landfill as the final destination. During the completion of the upgrade, the treatment at the facility consists of grit removal, primary sedimentation, flow equalization, activated sludge, tertiary filters, chlorination / dechlorination, primary sludge thickener, anaerobic digestion, plate press, and land application or landfill as the final destination.

Sludge is thickened, anaerobically digested, and dewatered (using filter presses). A portion of the dewatered sludge is composted (Class B), and hauled to various users in Ventura County. The rest of the dewatered sludge is disposed of in the Simi Valley and Chiquita Canyon landfills.

Figures 2 and 3 show the schematic of the current wastewater flow and the wastewater flow upon completion of the construction upgrade.

#### **DESCRIPTION OF WASTE DISCHARGE AND OUTFALL**

6. The volume and characteristics of the treated wastewater, based on discharge monitoring reports from January 1995 through December 1999, are as follows:

Annual Average Influent Flow	8.89 mgd
Annual Average Flow to Santa Clara River	7.76 mgd
Highest Monthly Average Flow to Santa Clara River	15.05 mgd

<u>Constituents</u>	<u>Unit</u>	<u>Annual Average Value</u>
BOD <sub>5</sub> 20°C	mg/L	2.8
Total chlorine residual	mg/L	<0.1
Total dissolved solids	mg/L	1396
Total suspended solids	mg/L	1.74
Settleable solids	ml/L	<0.1
Ammonia (as N)	mg/L	3.34
Nitrate (as N)	mg/L	13.7
Kjeldahl nitrogen	mg/L	4.26

7. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified the discharge from the Ventura Water Renovation Facility as a major discharge.
8. The treated wastewater is discharged into the Santa Clara River Estuary, a water of the United State, at latitude 34° 14' 11", and longitude 119° 15' 31" (Discharge Serial No. 001).

The mouth of the Santa Clara River is sometimes closed off by a sand bar so that a shallow lagoon is created. However, at times when the sand bar is breached, either by flood waters or by mechanical means, the lagoon empties directly into the Pacific Ocean. The Pacific Ocean is about 2,000 feet west from Discharge Serial No. 001.

The State of California Department of Parks and Recreation has declared McGrath State Beach and the surrounding 160 acres a natural preserve. The preserve includes the main channel of the Santa Clara River and adjacent natural lands of riparian shrubland and saltwater marsh. The purpose of the natural preserve is to protect and perpetuate the river ecosystem at the mouth of the Santa Clara River. Resource values of particular significance include: estuarine waters, which are used extensively by a wide variety of waterfowl and other water-associated birds; nesting habitat of the endangered California least tern; and riparian shrubland and saltwater marsh communities.

The effluent limits were derived based on the salinity of the receiving waters. The CTR specifies that fresh water criteria apply at locations where the salinity is 1 part per thousand (ppt) or less 95% or more of the time, and marine water criteria apply at locations where the salinity is 10 ppt or more 95% or more of the time. At locations where salinities fall between 1 and 10 ppt, the more stringent of either fresh or marine waters apply. The Santa Clara River Estuary typically experiences more tidal influence during winter and spring when the sand bar is open, while during the summer and fall the bar is closed and less tidal influence occurs. Data obtained from U.S. Fish and Wildlife Service demonstrate that the discharge point is classified as inbetween freshwater and saltwater according to the definitions in the CTR.

In order to protect the beneficial uses, the limits for both fresh and salt water were compared, and the more stringent of the two was used to set each effluent limit within this permit. In this manner, the Regional Board is protecting the most sensitive environmental beneficial use.

9. A small portion of the treated wastewater is reused for turf and landscape irrigation. Approximately 1.0 MGD of the treated wastewater percolates into groundwater from the ponds on site at the treatment facility. The reuse of the treated wastewater and the percolation to groundwater are regulated under water reclamation requirements which are contained in a separate order (Order No. 87-45), adopted by this Board on April 27, 1987.
10. In September 1978, the City of San Buenaventura submitted a facilities plan for effluent utilization which included a demonstration of enhancement to the Santa Clara River Estuary based on an average minimum effluent flow of 5.6 mgd. The Regional Board concurred with the findings in the facilities plan that this discharge is not degrading the beneficial uses of the Estuary, and in fact, some of the beneficial uses, such as fish and wildlife habitat and non-contact water recreation, are enhanced by the presence of the discharge.

## **HISTORY OF DISCHARGE**

11. On June 12, 1995, the Regional Board last issued waste discharge requirements for the Ventura Water Reclamation Facility. At that time, it was understood that there were some pollutant limits that the VWRF would not be able to meet. Interim limits were included in the permit until such time as the City completed its study to determine the source of the pollutants, implemented process changes that would minimize the presence of the problem pollutants, determined how to achieve these limits, and completed a characterization of the estuary. The City believed that the estuary is predominantly fresh water and that the effluent limits, if calculated using fresh receiving water data instead of salt water receiving criteria, would be achievable.
12. In May of 1996, the City submitted Phase 1 of the NPDES Limit Achievability Study which identified which new permit limits could not be currently complied with, and to determine if source control actions applied to controllable discharges could be expected to reduce discharge concentrations below effluent limits contained in the permit. The study indicated the City was in compliance with most limits, however, the following pollutants were problematic: bis(2-ethylhexyl)phthalate, dichlorobromomethane, copper, lead, nickel, and zinc.

Zinc appeared to be the only problem pollutant that could be reduced in concentration by source control actions. Zinc orthophosphate was used as a corrosion control additive in the water supply and the substitution of another chemical compound proved successful. The application of source control methods would not decrease the concentrations found in the effluent for copper, lead, nickel, and bis(2-ethylhexyl)phthalate because current removal efficiencies were unable to meet the limits established in the permit. Dichlorobromomethane results from the addition of chlorine used in the disinfection process and cannot be reduced in concentration with the current treatment process.
13. On March 5, 1998, the City submitted Phase 2 of the NPDES Limit Achievability Study which addressed the achievability of permit limits through treatment process modifications. The City reviewed the USEPA Bibliographic Database and found no full-scale information on processes that would achieve compliance with their NPDES permit limits. Processes examined include reverse osmosis, addition of lime, alternative disinfection processes, activated carbon adsorption and air stripping. Either the process would not aid in VWRF's achieving compliance or there were other adverse effects that needed to be further analyzed.
14. On November 12, 1999, the City submitted Phase 3 of the NPDES Limit Achievability Study which addressed the results of the receiving water study and determined the appropriate standards for calculating water quality objectives for the Santa Clara River Estuary. The City's interpretation of the results of this study are summarized below:
  - a. Most of the designated beneficial uses are supported and enhanced by the City's

- discharge. The discharge provides make-up water from that lost upstream due to diversion and pumping;
- b. The estuary is primarily a freshwater ecosystem, which should allow for consideration of water hardness in recalculating the discharge limits for metals;
  - c. State regulations prohibit fishing and shellfish collection in the estuary and low numbers of suitably sized species are present, therefore the human consumption of seafood from the estuary is much lower than assumed in standard risk models. The study proposes that site specific information be used in calculating water quality objectives for the organic pollutants and concludes that adjusting the permit limits using site specific information will still be protective of the beneficial uses of the estuary;
  - d. Adjusting the permit limits by incorporating site-specific information will not impair or harm the beneficial uses of the estuary;
  - e. The criteria for determining the site specific objectives are met; and,
  - f. Monitoring studies of the Santa Clara River and Estuary show that ambient concentrations of the six pollutants are comparable to the concentrations found in the effluent. Effluent concentrations and ambient concentrations exceed the NPDES permit limits with similar frequency for all pollutants except copper.

#### **APPLICABLE PLANS, POLICIES, AND REGULATIONS**

- 15. This discharge is subject to USEPA's regulations promulgated pursuant to Section 304(1) of the Clean Water Act and to implement USEPA's "Policy for the Development of Water Quality-based Permit Limitations for Toxic Pollutants" (49 FR 9016, dated March 9, 1984). These regulations prescribe biological and other laboratory testing procedures and toxicity limits, particularly for chronic toxicity.
- 16. Pursuant to 40 CFR Part 403, the City developed and implements an approved industrial wastewater pretreatment program.
- 17. To implement Section 405(d) of the Clean Water Act, USEPA promulgated 40 CFR Part 503 on February 19, 1993, to regulate the use and disposal of municipal sewage sludge. This Order implements these regulations and it is the responsibility of the Discharger to comply with said regulations, which are enforceable by USEPA.
- 18. Effluent limitations, national standards of performance, toxic and pretreatment effluent standards, test procedure guidelines, regulations, requirements, and/or guidelines established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 405 of the Clean Water Act and amendments thereto are applicable to this discharge.
- 19. Pursuant to Section 402(p) of the Clean Water Act and 40 CFR Parts 122, 123, and 124, the State Water Resources Control Board (State Board) adopted general NPDES permits to regulate stormwater discharges associated with industrial activity (State Board Order No. 91-13-DWQ adopted in November 1991, amended by Order No. 92-12-DWQ adopted in

September 1992). The requirements of this general permit are incorporated into this permit.

20. On July 23, 1997, the State Water Resources Control Board (State Board) adopted the revised *Water Quality Control Plan for the Ocean Waters of California* (Ocean Plan). The Ocean Plan contains water quality objectives for the coastal waters of California. This Order includes effluent and receiving water limitations, prohibitions, and provisions which implement the objectives of the Ocean Plan.
21. On May 18, 1972 (amended on September 18, 1975), the State Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan). The Thermal Plan contains temperature objectives for the Pacific Ocean.
22. On October 28, 1968, the State Board adopted Resolution No. 68-16, "Maintaining High Quality Water" which established an antidegradation policy for State and Regional Boards.
23. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watershed of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan incorporates by reference the Ocean Plan, the Thermal Plan, and the antidegradation policy. The Basin Plan also identifies water quality objectives and beneficial uses for surface waters of Ventura.
24. The beneficial uses of the receiving waters are:

a. Santa Clara River Estuary

Navigation, water contact recreation, noncontact water recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, rare, threatened, or endangered species, migration of aquatic organisms, spawning, and wetland habitat.

b. Pacific Ocean, Nearshore\*

Industrial service supply, navigation, water contact recreation, noncontact water recreation, commercial and sport fishing, marine habitat, wildlife habitat, preservation of biological habitats, rare, threatened, or endangered species, migration of aquatic organisms, spawning, and shellfish harvesting.

\*Nearshore is defined as the zone bounded by the shoreline and a line 1,000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline.

25. On May 18, 2000, the United States Environmental Protection Agency (USEPA) promulgated numeric criteria for priority toxic pollutants for the state of California [known as the California Toxics Rule (CTR) and codified as 40 CFR part 131.38]. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Order No. 2000-015). Toxic pollutant limits are prescribed in this Order to implement the CTR. On April 26, 2000, State Board adopted the *Amending Resolution No. 2000-15 Regarding Adoption of the Policy for the Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Order No. 2000-030).
26. There is public contact in the downstream areas; hence, the quality of wastewater discharged to the Santa Clara River must be such that no health hazard is created.
27. The requirements contained in this Order are derived using best professional judgement and are based on the Basin Plan, Federal and State plans, policies, guidelines, and plant performance; and as they are met, will be in conformance with the goals of the aforementioned water quality control plans, water quality criteria, and will protect and maintain the existing beneficial uses of the receiving water.

#### **WATER QUALITY ASSESSMENT**

28. On May 12, 1999, the USEPA approved the State Water Resources Control Board's (SWRCB) Water Quality Assessment (WQA). The SWRCB prepared their WQA, or 303(d) List, in accordance with section 303(d) of the federal Clean Water Act, which calls for the identification of specific water bodies that do not meet or are not expected to meet water quality standards, even after the implementation of technology-based effluent limitations are applied to point source discharges.

The Santa Clara River Estuary is on the 1998 303(d) list of impaired waterbodies for coliform, and a portion of the river upstream of the estuary is listed for ammonia and coliform. Portions of the river have chloride exceedances. The Estuary is also listed for DDT in fish tissue, Chem A which is the sum of the chemicals aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene and also for toxaphene alone. Total Maximum Daily Load (TMDL) development for coliforms for the Santa Clara River Estuary is scheduled to begin in the fiscal year 2001/2002.

#### **REASONABLE POTENTIAL ANALYSIS**

29. 40 CFR122.44 (d)(1)(ii) requires that a Reasonable Potential Analysis (RPA) be performed for each toxic pollutant to determine whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion of a receiving water quality objective. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant

parameter in the effluent, and the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity). Because of effluent variability, there is always some degree of uncertainty in determining an effluent's impact on the receiving water. The State Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) addresses this issue by suggesting the use of a statistical approach.

For a toxic constituent with sufficient data to perform a RPA, effluent limitations are imposed if the maximum effluent concentration is greater than the most stringent criteria, if the lowest non-detected value is greater than the most stringent criteria, or if the background concentration is greater than the criteria.

For some constituents, a complete RPA cannot be performed on a discharger's effluent because there is insufficient ambient data upstream from the facility to determine if an effluent limitation is needed, or to calculate a final effluent limitation. In accordance with the SIP, such a discharger shall obtain ambient water samples for the priority pollutants upstream from the facility. After the ambient information is gathered, the RPA will be performed and the permit reopened to include additional numerical limitations, if necessary.

Insufficient data may also prevent completion of the RPA if there is insufficient receiving water data or effluent data. The steps above apply here as well.

30. For some pollutants including Aldrin, Alpha-BHC, Chlordane, DDT, Dieldrin, Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, PAHs, PCB total, Toxaphene, and TCDD Equivalents (2,3,7,8-tetrachlorodibenzo-p-dioxin), the applicable water quality objectives are below the levels that current analytical techniques can measure. Because the actual presence and loads of these pollutants are unknown for the treatment plant, it is reasonably cautious to conclude that the reasonable potential exists for each of these pollutants.
31. Water quality objectives specified in the Basin Plan were used to set the limits for toxic pollutants that are believed to be present in the effluent and have reasonable potential to cause or contribute to an excursion of a receiving water quality objective. Other pollutants are to be monitored only to gather data for reasonable potential analysis in future permit renewals. If there is no specific numerical water quality objective for the priority pollutant available in the Basin Plan, the appropriate water quality criterion in the California Toxics Rule or the National Toxics Rule are considered. The more stringent criterion will be incorporated into this Order.
32. No numerical limit is prescribed for any toxic constituent that is consistently not detected in the effluent and where it has been determined that there is a very low probability of causing or contributing to excursions in water quality standards. A narrative limit to comply with all water quality objectives is provided in lieu of such numerical limits.



33. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) in accordance with Water Code Section 13389.

### **NOTIFICATION**

The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect ten days from the date of its adoption, provided the USEPA Regional Administrator has no objections.

Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

**IT IS HEREBY ORDERED** that the City of San Buenaventura, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

#### **I. DISCHARGE REQUIREMENTS**

##### **A. FLOW REQUIREMENT**

The running 30-day average volume of treated wastewater discharged to the Santa Clara River shall not be less than 5.6 mgd.

##### **B. EFFLUENT LIMITATIONS**

1. Wastes discharged shall be limited to tertiary treated municipal and industrial wastewater only, as proposed.
2. The arithmetic mean of BOD<sub>5</sub>20°C and suspended solids values, by weight, for effluent samples collected during a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of values, by

weight, for influent samples collected at approximately the same time during the same period.

3. The discharge of an effluent from Discharge Serial No. 001 with pollutants in excess of the following limits is prohibited:

- a. Conventional and Nonconventional Pollutants:

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>		
		<u>Monthly Average</u> <sup>1/,3/</sup>	<u>7-day Average</u> <sup>1/,3/</sup>	<u>Daily Maximum</u> <sup>2/,3/</sup>
BOD <sub>5</sub> 20°C	mg/L	20	30	45
	lbs/day	2,340	3,500	5,250
Suspended solids	mg/L	15	40	45
	lbs/day	1,751	4,670	5,250
Oil and grease	mg/L	10	---	15
	lbs/day	1,170	---	1,750
Settleable solids	ml/L	0.1	---	0.3
Residual chlorine	mg/L	---	---	0.1

- b. Metals:

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average</u> <sup>1/, 3/</sup>	<u>Daily Maximum</u> <sup>2/,3/</sup>
Arsenic	µg/L	29.4 <sup>4/</sup>	59 <sup>4/</sup>
	lbs/day		3.4 6.9
Chromium (VI) <sup>5/</sup>	µg/L	3.7 <sup>4/</sup>	11
	lbs/day	0.43	1.3
Copper	µg/L	2.0	2.9 <sup>4/</sup>
	lbs/day	0.23	0.34
Lead	µg/L	7.0 <sup>4/</sup>	14
	lbs/day	0.81	1.6

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average</u> <sup>3/</sup>	<u>Daily Maximum</u> <sup>2/, 3/</sup>
Mercury	μg/L lbs/day	0.025 <sup>4/</sup> 0.003	0.12 <sup>4/</sup> 0.014
Nickel	μg/L lbs/day	5.3 <sup>4/</sup> 0.61	15.2 1.8
Selenium	μg/L lbs/day	2.9 <sup>4/</sup> 0.34	8.8 1.03
Thallium	μg/L lbs/day	6.3 <sup>4/</sup> 0.74	19 2.2
Zinc	μg/L lbs/day	38 <sup>4/</sup> 4.4	95 <sup>4/</sup> 11
Cadmium	μg/L lbs/day	9.3 1.09	43 5.02
Silver	μg/L lbs/day	--- ---	2.3 0.27

c. Organics:

Cyanide	μg/L lbs/day	0.41 0.048	0.99 0.12
PCBs <sup>6/</sup>	ng/L lbs/day	0.00017 1.9 x 10-8	0.00034 4.0 x 10-8
Benzene	μg/L lbs/day	--- ---	71 8.3
Dichlorobromomethane	μg/L lbs/day	--- ---	22 2.6
Bis(2-ethylhexyl)phthalate	μg/L lbs/day	--- ---	5.9 0.69

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average</u> <sup>3/</sup>	<u>Daily Maximum</u> <sup>2/, 3/</sup>
Aldrin	µg/L	0.00014	0.00028
	lbs/day	0.000016	0.000033
Gamma-BHC (Lindane)	µg/L	0.063	0.13
	lbs/day	0.0074	0.0015
2,3,7,8-TCDD	µg/L	1.4 x 10-8	2.8 x 10-8
	lbs/day	1.6 x 10-9	3.3 x 10-9
Chloroform	µg/L	----	470
	lbs/day	----	55
Dibromochloromethane	µg/L	34	82
	lbs/day	4.0	9.6
Phenol	µg/L	4,600,000	9,246,000
	lbs/day	5,370,960	1.08 x 10+6
Benzidine	µg/L	0.00054	0.0011
	lbs/day	0.000063	0.00013
Benzo(a)anthracene	µg/L	0.049	0.098
	lbs/day	0.0057	0.012
Benzo(a)pyrene	µg/L	0.049	0.098
	lbs/day	0.0057	0.012
Benzo(b)flouranthene	µg/L	0.049	0.098
	lbs/day	0.0057	0.012
Benzo(k)flouranthene	µg/L	0.049	0.098
	lbs/day	0.0057	0.012
Bis(2-chloroethyl)ether	µg/L	1.4	2.8
	lbs/day	0.16	0.33
Chrysene	µg/L	0.049	0.098
	lbs/day	0.0057	0.012

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average</u> <sup>3/</sup>	<u>Daily Maximum</u> <sup>2/, 3/</sup>
3,3'-Dichlorobenzidine	μg/L lbs/day	0.077 0.0089	0.15 0.018
1,2-Diphenylhydrazine	μg/L lbs/day	0.54 0.063	1.09 0.13
Hexachlorobenzene	μg/L lbs/day	0.00077 0.000090	0.0015 0.00018
Hexachloroethane	μg/L lbs/day	8.9 1.034	28,140 0.0033
Indeno(1,2,3-cd)pyrene	μg/L lbs/day	0.049 0.0057	0.0015 0.00018
Hexachlorocyclohexane (HCH)			
Alpha-BHC	μg/L lbs/day	0.013 0.0015	0.026 0.0031
Beta-BHC	μg/L lbs/day	0.046 0.0054	0.92 0.108
Chlordane	μg/L lbs/day	0.00059 0.000069	0.0012 0.00014
4,4'-DDT	μg/L lbs/day	0.00059 0.000069	0.0012 0.00014
4,4'-DDE	μg/L lbs/day	0.00059 0.000069	0.0012 0.00014
4,4'-DDD	μg/L lbs/day	0.00084 0.000098	0.0017 0.00020
Dieldrin	μg/L lbs/day	0.00014 0.000016	0.00028 0.000033

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average<sup>3/</sup></u>	<u>Daily Maximum<sup>2/, 3/</sup></u>
Alpha endosulfan	μg/L	0.023	0.014
	lbs/day	0.0026	0.0017
Beta endosulfan	μg/L	0.0036	0.014
	lbs/day	0.00042	0.0017
Endrin	μg/L	0.00094	0.0038
	lbs/day	0.00011	0.00044
Heptachlor	μg/L	0.00021	0.00042
	lbs/day	0.000025	0.000049
Heptachlor epoxide	μg/L	0.00011	0.00022
	lbs/day	0.000013	0.000026
Toxaphene	μg/L	0.00016	0.00033
	lbs/day	0.000019	0.000038
Bromoform	μg/L	360	778
	lbs/day	42	9,080
Ethylbenzene	μg/L	29,000	58,290
	lbs/day	3386	6810
Methylene chloride	μg/L	1600	3216
	lbs/day	187	376
Toluene	μg/L	200,000	402,000
	lbs/day	23,352	46,900
1,4-Dichlorobenzene	μg/L	2600	5226
	lbs/day	304	610
Diethyl phthalate	μg/L	120,000	241,200
	lbs/day	14,011	28,200

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>Monthly Average</u> <sup>3/</sup>	<u>Daily Maximum</u> <sup>2/, 3/</sup>
Di-n-butyl phthalate	μg/L	12000	24,120
	lbs/day	1401	2820
Pentachlorophenol	μg/L	7.9	13
	lbs/day	0.75	1.5
Carbon tetrachloride	μg/L	---	4.4
	lbs/day	---	0.51
Tetrachloroethylene	μg/L	---	8.9
	lbs/day	---	1.04
2,4,6-Trichlorophenol	μg/L	---	6.5
	lbs/day	---	0.76

1/ As defined in Standard Provisions, Attachment N.

2/ The daily maximum effluent concentration limits apply to both flow weighted 24-hour composite samples and grab samples, as specified in the Monitoring and Reporting Program (Attachment T).

3/ The daily mass emission limits are based on the plant design flow rate of 14 mgd.

4/ Based on total recoverable metals. These limits may be converted to total dissolved upon request by the Discharger only after conducting a study, approved by the Executive Officer, on the Water Effect Ratio (WER) according to the USEPA guidance document (and/or State protocols, if available).

5/ The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the results are in compliance with hexavalent chromium limits.

6/ PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

4. Radioactivity of the wastes discharged shall not exceed limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the California Code of Regulations, or subsequent revisions thereof.
5. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which analyses have been completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.
6. The wastes discharged to water courses shall have received treatment equivalent to that of filtered wastewater. Filtered wastewater means oxidized and coagulated wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity of the filtered wastewater does not exceed any of the following: (a) a daily average of 2 Nephelometric turbidity units (NTUs); (b) 5 NTUs more than 5 percent of the time during the 24 hour period for which the daily average is calculated; and (c) 10 NTUs at any time.

"Oxidized wastewater" means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

"Coagulated wastewater" means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream of a filter by the addition of suitable floc-forming chemicals.

"NTU" means a measurement of turbidity as determined by ratio of the intensity of light scattered by the sample to the intensity of incident light using approved laboratory methods.

7. Toxicity Limitations:
  - a. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.



- b. The chronic toxicity of the effluent shall be expressed and reported as toxic units, where:

$$TU_c = 100/NOEC$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent/receiving water that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test. The chronic toxicity of the effluent shall not exceed 1.0  $TU_c$  in a critical life stage test. If the chronic toxicity of the effluent exceeds 1.0  $TU_c$ , the test must be redone immediately.

- c. If either toxicity limitation is violated, the Discharger shall repeat the toxicity test immediately. If either toxicity limitation is consistently violated, the Discharger shall begin a toxicity reduction evaluation (TRE) study and resume toxicity testing at the interval required by the Monitoring and Reporting Program.
- d. If either toxicity limitation is violated consecutively three or more times, the Discharger shall conduct a toxicity reduction evaluation (TRE) study. The TRE study shall include all reasonable steps to identify the sources of toxicity. Once the sources of toxicity are identified, the Discharger shall evaluate the effect of toxicity control options and the Discharger shall take all reasonable steps necessary to reduce toxicity to the required level.

**C. RECEIVING WATER REQUIREMENTS AND LIMITATIONS**

1. The maximum temperature of wastes discharged shall not exceed the natural receiving water temperature by more than 20°F. The elevated temperature of wastes discharged, either individually or combined with other discharges, shall not create a zone, defined by water temperatures of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of the main river channel at any point. The wastes discharged shall not cause a surface water temperature rise greater than 4°F above the natural temperature of the receiving waters at any time or place.
2. The pH of the receiving water shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.2 units from natural conditions. If such natural conditions exist, they must be reported in the monthly report.

3. At a minimum, the mean annual dissolved oxygen concentration of all waters shall be greater than 7.0 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
4. The fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400/100 ml.
5. The wastes discharged shall not contain toxic pollutants at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
6. The wastes discharged shall not contain substances that result in increases in the BOD which adversely affects beneficial uses of the receiving water.
7. The wastes discharged shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects the beneficial uses of the receiving water.
8. The wastes discharged shall not cause the receiving water to contain any substance in a concentration that adversely affects any designated beneficial use.
9. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the receiving waters.
10. The wastes discharged shall not degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
11. The wastes discharged shall not result in problems due to breeding of mosquitos, gnats, black flies, midges, or other pests.
12. Floating particulates, foams, or oil and grease shall not be visible in the receiving waters as a result of the wastes discharged.
13. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect the beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

14. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.
15. The wastes discharged shall not increase the turbidity of the receiving waters to the extent that causes a nuisance or adversely affects beneficial uses.
16. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions as a result of wastes discharged.
17. The wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.
18. The concentration of organic materials in marine sediments shall not be increased above that which would degrade marine life as result of wastes discharged.
19. The concentration of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health as a result of wastes discharged.
20. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations toxic to human, animal, plant, or fish life.
21. No physical evidence of wastes discharged shall be visible at any time in the water or on beaches, shores, rocks, or structures.
22. Exotic vegetation shall not be introduced around stream courses to the extent that such growth causes nuisance or adversely affects beneficial uses.
23. The natural hydrologic conditions necessary to support the physical, chemical, and biological characteristics present in wetlands shall be protected to prevent significant adverse effects on: (a) natural temperature, pH, dissolved oxygen, and other natural physical and chemical conditions; (b) movement of aquatic fauna; (c) survival and reproduction of aquatic flora and fauna; and (d) water levels.

24. The existing habitats and associated populations of wetlands fauna and flora shall be maintained by: (a) maintaining substrate characteristics necessary to support flora and fauna which would be present naturally; (b) protecting food supplies for fish and wildlife; (c) protecting reproductive and nursery areas; and (d) protecting wildlife corridors.

**D. RECEIVING WATER OBJECTIVES**

1. In order to protect aquatic life, ammonia in receiving waters shall not exceed concentrations specified in Tables 3-2 and 3-4 of the Basin Plan (Attachment 2) as a result of the wastes discharged.
2. To protect underlying groundwater basins, ammonia shall not be present in the wastes discharged at levels that when oxidized to nitrate will pose a threat to ground water.
3. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

If the chronic toxicity in the receiving water downstream of the discharge point consistently exceeds 1.0 TU<sub>c</sub> in a critical life stage test, the Discharger shall determine if the cause of the exceedance is the wastes discharged. If it is determined that the wastes discharged caused the exceedance, the Discharger shall conduct a toxicity reduction evaluation (TRE). The TRE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

**II. SLUDGE REQUIREMENTS**

For biosolids/sludge management, the City must comply with all requirements of 40 CFR Parts 257, 258, 501, and 503, including all monitoring, record keeping, and reporting requirements. Specific requirements are listed in Attachment B.

Since the State of California, hence the Regional Board, has not been delegated the authority to implement the sludge program, enforcement of the sludge requirements contained in this Order shall be the sole responsibility of USEPA. However, any reports submitted to USEPA shall also be furnished to the Regional Board.

### **III. PRETREATMENT REQUIREMENTS**

- A. This Order includes the Discharger's pretreatment program as previously submitted to this Regional Board. Any change to the program shall be reported to the Regional Board and USEPA in writing and shall not become effective until approved by the Executive Officer and the USEPA Regional Administrator.
- B. The Discharger shall implement and enforce its approved pretreatment program. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained 40 CFR Part 403 including subsequent regulatory revisions thereof. Where 40 CFR Part 403 or subsequent revisions thereof require mandatory actions by the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the issuance date of this Order or the effective date of the Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board, or other appropriate parties, as provided in the Clean Water Act. The Regional Board may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Clean Water Act and/or the California Water Code.
- C. The Discharger shall update its pretreatment local limits to meet the requirements of this Order. Within 60 days of the effective date of this Order, the Discharger shall submit the plan and schedule for updating the local limits for approval of the Executive Officer.
- D. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Clean Water Act with timely, appropriate, and effective enforcement actions. The City shall cause industrial users subject to the Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
- E. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not be limited to:
  - 1. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
  - 2. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
  - 3. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
  - 4. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

- F. The Discharger shall submit quarterly and annual reports to the Regional Board, State Board, and USEPA, Region 9, describing the Discharger's pretreatment activities over the period. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements. The annual and quarterly reports shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment P), or an approved revised version thereof.

#### **IV. OTHER REQUIREMENTS AND PROVISIONS**

- A. The Discharger shall comply with all applicable water quality objectives for the receiving waters, including the toxic criteria in 40 CFR Part 131.36.
- B. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated herein and said "Standard Provisions", those provisions stated herein prevail.
- C. This Order includes the attached *Monitoring and Reporting Program CI-1822* (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.
- D. This Order includes the requirements of the State Board's General NPDES permits for discharges of storm water associated with industrial activity (Order No. 97-03-DWQ).

The Discharger must submit within 90 days of the effective date of this Order for the Executive Officers approval an updated Storm Water Pollution Prevention Plan (SWPPP) in accordance with Attachment A (Storm Water Pollution Prevention Plan). The Discharger shall implement the revised SWPPP within 10 days of the approval by the Executive Officer.

- E. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other causes, the discharge of raw or inadequately treated sewage does not occur.
- F. The Discharger shall protect the facility from inundation which could occur as a result of a flood having a predicted frequency of once in 100 years.

- G. The Discharger shall comply with all applicable effluent limitations, national standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 405 of the Clean Water Act and amendments thereto.
- H. This Order may be modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed protection management approach.
- I. The Board may modify, or revoke and reissue, this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
- J. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the City for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

**V. EXPIRATION DATE**

This Order expires on September 10, 2005.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the expiration date as application for issuance of new waste discharge requirements.

**VI. RESCISSION**

Order No. 95-074 adopted by this Board on June 12, 1995, is hereby rescinded, except for purposes of enforcement.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on October 12, 2000.

Dennis A. Dickerson  
Executive Officer

/tp